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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,302	11/01/2003	Vernon Bruce Evans	ACST003-US0	2695

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EXAMINER

PHILLIPS, FORREST M

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,302

Applicant(s)

EVANS, VERNON BRUCE

Examiner

Forrest M. Phillips

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "relative" in claims 4 and 12 is a relative term which renders the claim indefinite. The term "relative" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The incompressibility of the acoustic absorbing materials is not defined and clearly set forth.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor (US4084367) in view of Jacobsen (US2004/0065507).

With respect to claim 1 Saylor discloses a method for constructing an acoustic absorbing panel comprising the steps of" providing a first fibrous-glass-free partition (22

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in figure 2) between a first region (the air) and a second region (32 in figure 2), the first partition (22 in figure 2) being acoustically penetrable (38 in figure 2) and the second region comprising an acoustic absorbing material (32 in figure 2) (column 5 lines 32-42 and 55-56) that is substantially free of fibrous glass; and providing a second fibrous glass free partition (34 in figure 2) between the second region and a third region (31 in figure 3); wherein the second region between the first and second partitions is substantially free of fibrous glass.

Saylor does not disclose the second region comprising a bulk acoustic absorbing material, or the bulk absorption material consists primarily of cotton or denim or both.

Jacobsen however does disclose the use of a primarily cotton (paragraph 21) bulk absorbing material.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the honeycomb acoustic absorption material of Saylor with the primarily cotton bulk absorber of Jacobsen.

The motivation for doing so would have been that cotton bulk absorbers are less complicated and thus cheaper to produce than honeycomb structures as well as cotton fibers being extremely readily available.

With respect to claim 2 Saylor further discloses wherein a third region (31 in figure 3) comprises an acoustic absorbing material (31 in figure 3) further comprises the step of providing a third partition (21 in figure 3) between the third region and a fourth region (the air) the third partition being acoustically penetrable (column 6 lines 12-13)

With respect to claim 3 Saylor discloses an acoustic absorbing material (31 in figure 3).

Jacobsen discloses the use of a primarily cotton bulk absorber (paragraph 21).

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the acoustic absorption material of Saylor with the acoustic absorption material of Jacobsen.

The motivation for doing so would have been to reduce complexity therefore cost and also that cotton is extremely readily available.

With respect to claim 4 Saylor further discloses wherein the second partition is substantially supported from movement by the acoustic absorbing materials in the second and third regions (column 5 lines 57-61). One of ordinary skill in the art would recognize the fact that having a material between the second partition and the first partition would prevent the second partition from moving.

With respect to claim 5 Saylor further discloses wherein the second partition (34 in figure 2) is substantially acoustically impenetrable to provide substantial acoustic isolation between the second and third regions (column 3 lines 65-66).

With respect to claim 9 Saylor discloses an acoustic absorbing structure (11 in figure 1), comprising: a first fibrous-glass-free partition (22 in figure 2) between a first region (the air) and a second region (32 in figure 2) the first partition (22 in figure 2) being acoustically penetrable (38 in figure 2) and the second region comprising an acoustic absorbing material (32 in figure 2) that is substantially free of fibrous glass; and a second fibrous-glass-free partition (34 in figure 3) between the second region (32 in

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figure 3) and a third region (31 in figure 3); wherein the second region between the first and second partition is substantially free of fibrous glass.

Saylor does not disclose the acoustic absorbing material is a bulk acoustic absorbing material, or wherein the bulk absorbing material consists primarily of cotton or denim or both.

Jacobsen discloses (paragraph 0021) the use of a bulk acoustic absorber that is primarily cotton or denim or both.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace one acoustic absorbing material with another acoustic absorbing material, namely to replace the honeycomb absorbing material with the bulk absorbing material of Jacobsen.

The motivation for doing so would have been to reduce complexity and thus cost, as well as the fact that cotton is a well known and extremely readily available material.

With respect to claim 10 Saylor further discloses the third region (31 in figure 3) comprises an acoustic absorbing material; and the structure further comprises a third partition (21 in figure 3) between the third region and a fourth region, the air, the third partition being acoustically penetrable(column 6 lines 12-13).

With respect to claim 11 Jacobsen further discloses wherein the acoustic absorbing material is substantially free of fibrous glass and consists primarily of cotton or denim or both(paragraph 21).

With respect to claim 12 Saylor further discloses wherein the second partition is substantially supported from movement by the acoustic absorbing materials in the

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second and third regions (column 5 lines 57-61). One of ordinary skill in the art would recognize the fact that having a material between the second partition and the first partition would prevent the second partition from moving.

With respect to claim 13 Saylor further discloses wherein the second partition(34 in figure 3) is substantially acoustically impenetrable to provide acoustic isolation between the second and third regions(column 3 lines 65-66).

Claims 6,14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor '367 in view of Jacobsen '65507 as applied to claims 1 and 9 above, and further in view of Hehmann (US4130175).

With respect to claim 6 Saylor in view of Jacobsen discloses the method of claim 1.

Saylor in view of Jacobsen does not expressly disclose further comprising the steps: providing an acoustically penetrable membrane between the first partition and the second region and in direct contact with the first partition.

Hehmann discloses (abstract lines 2-6) providing an acoustically penetrable membrane (20 in figure) between a first partition (24 in figure) and a second region (16 in figure) and in direct contact with the first partition. Hehmann is being relied on solely for the teaching of use of an acoustically penetrable membrane between a bulk absorber and a partition, being in direct contact with said partition.

Jacobsen discloses the use of a polymeric film in direct contact with a scrim and the fibrous batt.

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At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the acoustically penetrable membrane being in direct contact with the partition as taught by Hehmann with the method of Saylor in view of Jacobsen.

The motivation for doing so would be to provide a moisture barrier.

With respect to claim 14 it would have been obvious to combine an acoustically penetrable membrane being in direct contact with the partition as taught by Hehmann with the structure of Saylor in view of Jacobsen

The motivation for doing so would have been to provide a moisture barrier.

With respect to claim 17 the structure of Saylor is symmetric about the second partition as such it would have been obvious to have used the acoustically penetrable membrane between the third partition and the third region for the same reason as between the first partition and the second region.

Claims 7-8,15,16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor in view of Jacobsen in view of Hehmann as applied to claims 6 and 14 above, and further in view of Veen et al. (US 6345688).

With respect to claim 7 Saylor in view of Jacobsen in view of Hehmann discloses the method of claim 6.

Saylor in view of Jacobsen in view of Hehmann does not disclose wherein the membrane is adhered to a surface of the first partition by elevating the temperature of the membrane, followed by cooling the membrane to an ambient temperature.

Veen teaches the adhering of a membrane through the use of heating and cooling a membrane. Veen is relied on solely for the teaching of using heat and cooling to adhere a polymeric membrane to a surface.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the heat and cooling adhering of a membrane to a surface as taught by Veen with the method of Saylor in view of Jacobsen in view of Hehmann.

The motivation for doing so would be to eliminate the need for adhesives or other attaching means.

With respect to claim 8 Veen discloses wherein the temperature of the membrane is elevated during the application of a coating.

At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize this form of adhesion during the application of a coating to the first partition.

With respect to claim 15 Veen discloses wherein the membrane is adhered to a surface by elevating the temperature of the membrane, followed by cooling the membrane to an ambient temperature.

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the heating and cooling method of Veen to adhere the membrane to the partition.

With respect to claim 16 Veen further discloses wherein the temperature of the membrane is elevated during the application of a coating to a surface.

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At the time of the invention it would have been obvious to one of ordinary skill in the art to have the surface be a surface of the partition.

With respect to claim 18 It would have been obvious to one of ordinary skill, due to the symmetry of the Saylor panel to have adhered the membrane to the third partition as well as the first.

Response to Arguments

Applicant's arguments filed 6/16/06 have been fully considered but they are not persuasive. In paragraph 17 Applicant argues that the honeycomb structure of Saylor is an acoustic diffuser not an acoustic absorber. Saylor (column 5 lines 32-42) clearly states that the Helmholtz resonators of which his honeycomb structure is composed of are in fact absorbers. One of ordinary skill in the art would have understood that these resonators are in fact absorbers and not diffusers.

Applicant also argues that the septum of Saylor provides isolation but does not disclose acoustic isolation. The panel of Saylor is meant to attenuate acoustic waves, the resonators being isolated from one another. One of ordinary skill in the art would have understood this to have meant acoustic isolation as the purpose of the invention to acoustically isolate one work space from another.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Forrest M. Phillips whose telephone number is 5712729020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 5712721988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FP


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER